ABSTRACT

A magnetic switch (10) for detecting relative movement between first and second members (12, 14) is provided which includes a switch assembly (20, 50, 70) for mounting in one of the members (12, 14), an attractive component (22, 54, 76) for mounting on the other member; the assembly (20, 50, 70) preferably includes plural switch elements (40, 26, 70, 56, 92, 80) and a conductive, shiftable body (44), whereas the component (22, 54, 76) is magnetically attractive to the body (44). The first switch elements (40, 70, 92) are preferably formed of a magnetically attractive material while the body (44) is fabricated from permanently magnetized material, so that the body (44) remains permanently magnetically coupled with the element(s) (40, 70, 92) in all positions of the body (44). Alternately, the switch assemblies (20, 50, 70) can be used as proximity detectors so as to generate a signal in the presence of an adjacent ferrometallic or permanently magnetized object (108).